

FORM
2

Rev
12/20

State of Colorado

Oil and Gas Conservation Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80203
Phone: (303) 894-2100 Fax: (303) 894-2109



Document Number:

402784004

Date Received:

08/19/2021

APPLICATION FOR PERMIT TO:

Drill Deepen Re-enter Recomplete and Operate

Amend

Refile

Sidetrack

TYPE OF WELL OIL GAS COALBED OTHER: _____
ZONE TYPE SINGLE ZONE MULTIPLE ZONES COMMINGLE ZONES

Well Name: VIC EAST Well Number: 21E-20-09N
Name of Operator: EXTRACTION OIL & GAS INC COGCC Operator Number: 10459
Address: 370 17TH STREET SUITE 5200
City: DENVER State: CO Zip: 80202
Contact Name: JEFFREY ANNABLE Phone: (720)354-4590 Fax: ()
Email: JANNABLE@EXTRACTIONOG.COM

RECLAMATION FINANCIAL ASSURANCE

Plugging and Abandonment Bond Surety ID: 20130028

WELL LOCATION INFORMATION

Surface Location

QtrQtr: SENE Sec: 20 Twp: 7N Rng: 67W Meridian: 6
Footage at Surface: 2120 Feet FNL 272 Feet FEL
Latitude: 40.561227 Longitude: -104.908790
GPS Data: GPS Quality Value: 1.4 Type of GPS Quality Value: PDOP Date of Measurement: 05/17/2018
Ground Elevation: 5008
Field Name: WATTENBERG Field Number: 90750

Well Plan: is Directional Horizontal (highly deviated) Vertical

If Well plan is Directional or Horizontal attach Deviated Drilling Plan and Directional Data.

Subsurface Locations

Top of Productive Zone (TPZ)

Sec: 21 Twp: 7N Rng: 67W Footage at TPZ: 767 FSL 460 FWL
Measured Depth of TPZ: 7736 True Vertical Depth of TPZ: 6936 FNL/FSL FEL/FWL

Base of Productive Zone (BPZ)

Sec: 22 Twp: 7N Rng: 67W Footage at BPZ: 770 FSL 460 FEL
Measured Depth of BPZ: 17348 True Vertical Depth of BPZ: 6936 FNL/FSL FEL/FWL

Bottom Hole Location (BHL)

Sec: 22 Twp: 7N Rng: 67W Footage at BHL: 770 FSL 460 FEL
FNL/FSL FEL/FWL

LOCAL GOVERNMENT PERMITTING INFORMATION

County: WELD Municipality: N/A

Is the Surface Location of this Well in an area designated as one of State interest and subject to the requirements of § 24-65.1-108 C.R.S.? Yes

Per § 34-60-106(1)(f)(I)(A) C.R.S., the following questions pertain to the Relevant Local Government approval of the siting of the proposed Oil and Gas Location.

SB 19-181 provides that when "applying for a permit to drill," operators must include proof that they sought a local government siting permit and the disposition of that permit application, or that the local government does not have siting regulations. § 34-60-106(1)(f)(I)(A) C.R.S.

Does the Relevant Local Government regulate the siting of Oil and Gas Locations, with respect to this Location? Yes No

If yes, in checking this box, I hereby certify that an application has been filed with the local government with jurisdiction to approve the siting of the proposed oil and gas location.

The disposition of the application filed with the Relevant Local Government is: Approved Date of Final Disposition: 12/11/2018

Comments: WELD COUNTY OIL AND GAS LOCATION ASSESMENT (WOGLA18-0163) WAS APPROVED ON 12/11/18.

SURFACE AND MINERAL OWNERSHIP AT WELL'S OIL & GAS LOCATION

Surface Owner of the land at this Well's Oil and Gas Location: Fee State Federal Indian

Mineral Owner beneath this Well's Oil and Gas Location: Fee State Federal Indian

Surface Owner Protection Financial Assurance (if applicable): _____ Surety ID Number (if applicable): _____

MINERALS DEVELOPED BY WELL

The ownership of all the minerals that will be developed by this Well is (check all that apply):

Fee

State

Federal

Indian

N/A

LEASE INFORMATION

Using standard QtrQtr, Section, Township, Range format describe one entire mineral lease as follows:

* If this Well is within a unit, describe a lease that will be developed by the Well.

* If this Well is not subject to a unit, describe the lease that will be produced by the Well.

(Attach a Lease Map or Lease Description or Lease if necessary.)

Township 7 North Range 67 West
Section 16: All

Total Acres in Described Lease: 640 Described Mineral Lease is: Fee State Federal Indian

Federal or State Lease # 2656.13

SAFETY SETBACK INFORMATION

Distance from Well to nearest:

Building: 433 Feet
Building Unit: 2184 Feet
Public Road: 258 Feet
Above Ground Utility: 323 Feet
Railroad: 5280 Feet

INSTRUCTIONS:

- Specify all distances per Rule 308.b.(1).
- Enter 5280 for distance greater than 1 mile.
- Building - nearest building of any type. If nearest Building is a Building Unit, enter same distance for both.
- Building Unit – as defined in 100 Series Rules.

Property Line: 272 Feet

OBJECTIVE FORMATIONS

Objective Formation(s)	Formation Code	Spacing Order Number(s)	Unit Acreage Assigned to Well	Unit Configuration (N/2, SE/4, etc.)
NIOBRARA	NBRR	407-2127	2560	Township 7 North, Range 67 West: Sections 15,16,21,22-All

Federal or State Unit Name (if appl): _____ Unit Number: _____

SUBSURFACE MINERAL SETBACKS

Enter 5280 for distance greater than 1 mile.

Is this Well within a unit? Yes

If YES:

Enter the minimum distance from the Completed Zone of this Well to the Unit Boundary: 460 Feet

Enter the minimum distance from the Completed Zone of this Well to the Completed Zone of an offset Well within the same unit permitted or completed in the same formation: 635 Feet

If NO:

Enter the minimum distance from the Completed Zone of this Well to the Lease Line of the described lease: _____ Feet

Enter the minimum distance from the Completed Zone of this Well to the Completed Zone of an offset Well producing from the same lease and permitted or completed in the same formation: _____ Feet

Exception Location

If this Well requires the approval of a Rule 401.c Exception Location, enter the Rule or spacing order number and attach the Exception Location Request and Waivers. _____

SPACING & FORMATIONS COMMENTS

DRILLING PROGRAM

Proposed Total Measured Depth: 17348 Feet TVD at Proposed Total Measured Depth 6936 Feet

Distance from the proposed wellbore to nearest existing or proposed wellbore belonging to another operator, including plugged wells:

Enter distance if less than or equal to 1,500 feet: 811 Feet No well belonging to another operator within 1,500 feet

Will a closed-loop drilling system be used? Yes

Is H2S gas reasonably expected to be encountered during drilling operations at concentrations greater than or equal to 100 ppm? No If yes, attach an H2S Drilling Plan unless a plan was already submitted with the Form 2A per Rule 304.c.(10).

Will there be hydraulic fracture treatment at a depth less than 2,000 feet in this well? No

Will salt sections be encountered during drilling? No

Will salt based (>15,000 ppm Cl) drilling fluids be used? No

Will oil based drilling fluids be used? Yes

BOP Equipment Type: Annular Preventor Double Ram Rotating Head None

Beneficial reuse or land application plan submitted? _____

Reuse Facility ID: _____ or Document Number: _____

CASING PROGRAM

Casing Type	Size of Hole	Size of Casing	Grade	Wt/Ft	Csg/Liner Top	Setting Depth	Sacks Cmt	Cmt Btm	Cmt Top
CONDUCTOR	24	16	N/A	42	0	80	100	80	0
SURF	12+1/4	9+5/8	J-55	36	0	1500	400	1500	0
1ST	8+1/2	5+1/2	P-110	20	0	17348	2309	17348	1500

Conductor Casing is NOT planned

POTENTIAL FLOW AND CONFINING FORMATIONS

Zone Type	Formation /Hazard	Top M.D.	Top T.V.D.	Bottom M.D.	Bottom T.V.D.	TDS (mg/L)	Data Source	Comment
Groundwater	Fox Hills	0	0	804	804	1001-10000	Field Scout Card	Sample Site ID# 752844
Confining Layer	Parkman	3675	3499	4255	4033			
Hydrocarbon	Sussex	4256	4034	4875	4603			Not commercial.
Hydrocarbon	Shannon	4876	4604	7541	6905			Not commercial.
Confining Layer	Sharon Springs	7542	6906	7623	6925			
Hydrocarbon	Niobrara	7624	6926	17348	6936			

OPERATOR COMMENTS AND SUBMITTAL

Comments

The distance to the completed portion of the nearest well on the "Spacing & Formations" tab was measured to Extraction's VIC EAST 21E-20-08N. This distance was measured in 2-dimensional space.

The distance to the nearest well belonging to another operator on the "Drilling & Waste Plans" tab was measured to CACTUS HILL #1 (API #05-123-07733). This distance was measured in 2-dimensional space.

Changes made to the permit: Bottom hole/lateral moved to different sections, updated offset well evaluation.

The Surface Use Agreement is attached to the Scout Card. Location has not been constructed.

This application is in a Comprehensive Area Plan No CAP #: _____

OGDP ID#: _____ OGDP Name: _____ Expiration Date: _____

Location ID: 458215 Location Name: VIC 20-E PAD

I hereby certify all statements made in this form are, to the best of my knowledge, true, correct, and complete.

Signed: _____ Print Name: JEFFREY ANNABLE

Title: EHSR ASSET COORDINATOR Date: 8/19/2021 Email: JANNABLE@EXTRACTIONOG

Operator must have a valid water right or permit allowing for industrial use or purchased water from a seller that has a valid water right or permit allowing for industrial use, otherwise an application for a change in type of use is required under Colorado law. Operator must also use the water in the location set forth in the water right decree or well permit, otherwise an application for a change in place of use is required under Colorado law. Section 37-92-103(5), C.R.S. (2011).

Based on the information provided herein, this Application for Permit-to-Drill complies with COGCC Rules, applicable orders, and SB 19-181 and is hereby approved.

COGCC Approved:  Director of COGCC Date: 10/5/2021

Expiration Date: 10/04/2024

API NUMBER

05 123 48281 00

Conditions Of Approval

All representations, stipulations and conditions of approval stated in the Form 2A for this location shall constitute representations, stipulations and conditions of approval for this Form 2 Permit-to-Drill and are enforceable to the same extent as all other representations, stipulations and conditions of approval stated in this Permit-to-Drill.

Condition of Approval

<u>COA Type</u>	<u>Description</u>
Drilling/Completion Operations	If location is not built by 2A expiration 10/18/21, Operator must Refile Form 2A for approval prior to location construction.
Drilling/Completion Operations	Per COGCC Order 1-232, Bradenhead tests shall be performed according to the following schedule and Form 17 submitted within 10 days of each test: 1) Within 60 days of rig release, prior to stimulation. If any pressure greater than 200 psi, must contact COGCC engineer prior to stimulation. 2) If a delayed completion, 6 months after rig release and prior to stimulation. If any pressure greater than 200 psi, must contact COGCC engineer prior to stimulation. 3) A post-production test within 60 days after first sales, as reported on the Form 10, Certificate of Clearance.
Drilling/Completion Operations	1) Submit Form 42 electronically to COGCC 2 business days prior to MIRU (Spud Notice), for the first well/activity on the pad and provide 2 business days spud notice for all subsequent wells drilled on the pad. 2) Comply with Rule 408.j and provide cement coverage from the end of production casing to a minimum of 500' above Niobrara. Verify coverage with cement bond log. 3) Oil-based drilling fluid is to be used only after all aquifers are covered.
3 COAs	

Best Management Practices

<u>No</u>	<u>BMP/COA Type</u>	<u>Description</u>
1	Drilling/Completion Operations	Alternative Logging Program: One of the first wells drilled on the pad will be logged with open-hole resistivity log with gamma-ray log from the kick-off point into the surface casing. All wells on the pad will have a cement bond log with gamma-ray run on production casing (or on intermediate casing if production liner is run) into the surface casing. The horizontal portion of every well will be logged with a measured-while-drilling gamma-ray log. The Form 5, Completion Report, for each well on the pad will list all logs run and have those logs attached. The Form 5 for a well without openhole logs shall state "Alternative Logging Program - No open-hole logs were run" and shall clearly identify the type of log and the well (by API#) in which open-hole logs were run.
2	Drilling/Completion Operations	Anti-collision: Operator will perform an anti-collision evaluation of all active (producing, shut in, or temporarily abandoned) offset wellbores that have the potential of being within 150 feet of a proposed well prior to drilling operations for the proposed well. Notice shall be given to all offset operators prior to drilling.

Total: 2 comment(s)

Applicable Policies and Notices to Operators

Policy for Bradenhead Monitoring During Hydraulic Fracturing Treatments in the Greater Wattenberg Area.
<http://cogcc.state.co.us/documents/reg/Policies/PolicyGwaBradenheadMonitoringFinal.pdf>

Attachment List

Att Doc Num	Name
402784004	FORM 2 SUBMITTED
402784477	OffsetWellEvaluations Data
402784507	DIRECTIONAL DATA
402784508	DEVIATED DRILLING PLAN
402784516	WELL LOCATION PLAT
402832007	OFFSET WELL EVALUATION

Total Attach: 6 Files

General Comments

User Group	Comment	Comment Date
OGLA	This Location and its associated materials was fully reviewed in the review of this APD in accordance with current Rules. See Sundry Doc #402138102 in Location #458215 file for additional information. This APD complies with all COGCC Rules and is adequately protective of public health, safety, welfare, the environment, and wildlife resources. OGLA task passed.	09/30/2021
Permit	SLB has no concerns with this application. Final Review Completed.	09/09/2021
Permit	Emailed the SLB to notify them of this pending application. Permitting Review Complete.	09/02/2021
Engineer	Offset Wells Evaluated	08/20/2021

Total: 4 comment(s)